

Serial No. 10/779,892
Docket No. 40500.0117

REMARKS

Applicant hereby replies to the Notice of Non-Compliant Amendment dated April 26, 2006 and the Office Action dated November 16, 2005, within the shortened three month statutory period for reply. Claims 1-24 were pending in the application and the Examiner rejects claims 1-24. Applicant amends certain claims and adds new claims 25-26. Support for the amendments may be found in the originally-filed specification, claims, and figures. No new matter has been introduced by these amendments. Reconsideration of this application is respectfully requested.

Applicant thanks the Examiner for clarifying that the amended paragraph is re-written paragraph [0031] and for entering the amendments in paragraph [0031].

Applicant also thanks the Examiner for clarifying the discrepancy in claims 22-24; however, contrary to the Examiner's suggestion, Applicant clarifies that claims 22-24 should be system claims depending from independent system claim 11.

The Examiner objects claim 11 because the Examiner asserts that claim 11 is "so close in content" to claim 1. Applicant traverses this objection. Moreover, upon entry of the foregoing amendments to claims 1 and 11, Applicant asserts that the claims are not duplicates or sufficiently close in content.

The Examiner rejects claim 9 under 35 U.S.C. § 112 due to insufficient antecedent basis for "gears" and the functional capacity of the element. To further prosecution, Applicant amends claim 9 to remove the antecedent basis issue and to indicate the structural nature of the gears.

The Examiner next rejects claims 1-5, 11, 12, 14, 15, 17, 19 and 21 under 35 U.S.C. § 102 (b) as being anticipated by Lichty, U.S. Patent No. 4,456,005 ("Lichty"). Applicant respectfully traverses this rejection.

Lichty is limited to a device having a rigid, threaded shank. The Lichty threading includes a continuous helical path along the outer edge of the shank such that the lock nuts must be rotated in order to move along the shank. The rotation of a lock nut over a threaded shank often requires precise alignment of the nut to start the rotation process. Moreover, any uneven rotation usually results in the inability to continue to screw the nut, damage to the threads or the need to reverse the nut and start the process over again. The process of rotating the nut also takes extra time, extra hands, extra coordination and extra devices. The process of inserting the Lichty device and rotating the nuts may also damage the surrounding tissue or pathology, thereby increasing the likelihood of infection.

Serial No. 10/779,892
Docket No. 40500.0117

The Lichty device also does not allow for extra tensioning of the fixation device by further pulling a wire or using a spring to continuously pull on the wire (e.g., paragraph [0030]), as set forth in the presently claimed invention. While the excess portion of the shank may be removed, the rigid nature of the Lichty shank would require a hacksaw or other cumbersome tool which would increase the time and skills needed for the procedure, along with decreasing the sterility of the process (e.g., the metal shavings distributed from the sawing process).

The Lichty device also requires different sized shanks and nuts. As such, the Lichty device would literally destroy the benefits and functionality of the presently claimed invention. As set forth in the Background section of the present application, one purpose of the present invention is to avoid the need for numerous screw sizes and nuts, along with avoiding the need for managing large sets of screws and nuts that need to constantly be replaced. Accordingly, Lichty does not teach or disclose at least "said cap having a second interface component including an inverse sawtooth configuration on an inner surface of said cap such that said cap is configured to translate along said wire with certain of said inverse sawteeth sliding over certain of said sawteeth," as similarly recited by amended independent claims 1 and 14, or "flexible wire" or "a cap configured to mate with said second end of said flexible wire by translating along said flexible wire over a surface which restricts reverse translational movement," as similarly recited by amended independent claims 11 and 17.

Dependent claims 2-5, 12, 15, 19 and 21 variously depend from independent claims 1, 11, 14 and 17, so Applicant asserts that claims 2-5, 12, 15, 19 and 21 are differentiated from the cited reference for the same reasons as set forth above, as well as in view of their own respective features.

The Examiner next rejects claims 1, 6, 8, 10 and 13 under 35 U.S.C. § 102 (b) as being anticipated by Galline, U.S. Patent No. 4,889,110 ("Galline"). Applicant respectfully traverses this rejection.

Galline is limited to an anchor plate, crimping tubes and crimping rings for holding a multi-ply cable. The anchor plate supports a crimping tube and crimping ring for a cable, wherein the cable is crimped into the crimping ring. The insertion of the cable into the crimping ring often requires precise alignment of the cable, because once the cable is crimped, it would be very difficult, if not impossible, to un-crimp the cable and further tighten the cable. Such an un-crimping process would increase the time, skills and devices needed, along with sacrificing the sterility of the procedure. The Galline device also does not allow for extra tensioning of the

Serial No. 10/779,892
Docket No. 40500.0117

fixation device by further pulling a wire or using a spring to continuously pull on the wire (e.g., paragraph [0030]), as set forth in the presently claimed invention. While the excess portion of the multi-ply cable may be removed, the rigidity and thickness of the multi-ply cable would require a hacksaw or other cumbersome tool which would increase the time and skills needed for the procedure, along with decreasing the sterility of the process (e.g., the metal shavings distributed from the sawing process). Accordingly, Galline does not teach or disclose at least "said cap having a second interface component including an inverse sawtooth configuration on an inner surface of said cap such that said cap is configured to translate along said wire with certain of said inverse sawteeth sliding over certain of said sawteeth," as recited by amended independent claim 1, or "a cap configured to mate with said second end of said flexible wire by translating along said flexible wire over a surface which restricts reverse translational movement," as recited by independent claim 11.

Dependent claims 6, 8, 10 and 13 variously depend from independent claims 1 and 11, so Applicant asserts that claims 6, 8, 10 and 13 are differentiated from the cited reference for the same reasons as set forth above, as well as in view of their own respective features.

The Examiner next rejects claims 1, 3, and 8-10 under 35 U.S.C. § 102 (b) as being anticipated by Miller, U.S. Patent No. 5,423,820 ("Miller"). Applicant respectfully traverses this rejection.

Miller is limited to an L-shaped crimp holding a multi-ply cable, wherein the cable is crimped into the L-shaped crimp device. The insertion of the cable into the crimp device often requires precise alignment of the cable, because once the cable is crimped, it would be very difficult, if not impossible, to un-crimp the cable and further tighten the cable. Such an un-crimping process would increase the time, skills and devices needed, along with sacrificing the sterility of the procedure. The Miller device also does not allow for extra tensioning of the fixation device by further pulling a wire or using a spring to continuously pull on the wire (e.g., paragraph [0030]), as set forth in the presently claimed invention. While the excess portion of the multi-ply cable may be removed, the rigidity and thickness of the multi-ply cable would require a hacksaw or other cumbersome tool which would increase the time and skills needed for the procedure, along with decreasing the sterility of the process (e.g., the metal shavings distributed from the sawing process). Accordingly, Miller does not teach or disclose at least "said cap having a second interface component including an inverse sawtooth configuration on an inner surface of said cap such that said cap is configured to translate along said wire with

Serial No. 10/779,892
Docket No. 40500.0117

certain of said inverse sawteeth sliding over certain of said sawteeth," as recited by amended independent claim 1.

Dependent claims 3 and 8-10 variously depend from independent claim 1, so Applicant asserts that claims 3 and 8-10 are differentiated from the cited reference for the same reasons as set forth above, as well as in view of their own respective features.

The Examiner next rejects claims 14-16 under 35 U.S.C. § 102 (b) as being anticipated by McLaren, U.S. Patent No. 5,100,405 ("McLaren"). Applicant respectfully traverses this rejection.

McLaren is limited to a locking cap having a helically threaded body, such that the locking cap is threaded over the fixation rod. The rotation of a locking cap over a threaded rod often requires precise alignment of the locking cap to start the rotation process. Moreover, any uneven rotation usually results in the inability to continue to screw the cap, damage to the threads or the need to reverse the cap and start the process over again. The process of rotating the cap also takes extra time, extra hands, extra coordination and extra devices. The process of inserting the McLaren device and rotating the cap may also damage the surrounding tissue or pathology, thereby increasing the likelihood of infection.

The McLaren device also does not allow for extra tensioning of the fixation device by further pulling a wire or using a spring to continuously pull on the wire (e.g., paragraph [0030]), as set forth in the presently claimed invention. While the excess portion of the rod may be removed, the rigid nature of the McLaren rod would require a hacksaw or other cumbersome tool which would increase the time and skills needed for the procedure, along with decreasing the sterility of the process (e.g., the metal shavings distributed from the sawing process).

The McLaren device also requires different sized rods and caps. As such, the McLaren device would literally destroy the benefits and functionality of the presently claimed invention. As set forth in the Background section of the present application, one purpose of the present invention is to avoid the need for numerous cap and rod sizes, along with avoiding the need for managing large sets of caps and rods that need to constantly be replaced. Accordingly, McLaren does not teach or disclose at least "wherein said cap device is configured to receive a wire having a first end and a second end, wherein said first end of said wire is configured to mate with a head component, said wire having a first interface along at least a portion of said wire, wherein said first interface includes a sawtooth configuration, wherein said head component is configured to attach to one of said objects, said cap device configured to mate with said second end of said

Serial No. 10/779,892
Docket No. 40500.0117

wire, said cap having a second interface component including an inverse sawtooth configuration on an inner surface of said cap such that said cap is configured to translate along said wire with certain of said inverse sawteeth sliding over certain of said sawteeth" as recited by amended independent claim 14.

Dependent claims 15-16 variously depend from independent claim 14, so Applicant asserts that claims 15-16 are differentiated from the cited reference for the same reasons as set forth above, as well as in view of their own respective features.

The Examiner next rejects claims 1, 7, 17, 18, 20, and 22 under 35 U.S.C. § 103 (a) as being unpatentable over Songer, U.S. Patent No. 5,611,801 in view of McLaren. Applicant respectfully traverses this rejection.

Songer is limited to a threaded pin having a cable, wherein the cable wraps around the bone or the cables are secured together under the tension of a crimp. The insertion of the cable into the crimp device often requires precise alignment of the cable, because once the cable is crimped, it would be very difficult, if not impossible, to un-crimp the cable and further tighten the cable. Such an un-crimping process would increase the time, skills and devices needed, along with sacrificing the sterility of the procedure. The Songer device also does not allow for extra tensioning of the fixation device by further pulling a wire or using a spring to continuously pull on the wire (e.g., paragraph [0030]), as set forth in the presently claimed invention. While the excess portion of the multi-ply cable may be removed, the rigidity and thickness of the multi-ply cable would require a hacksaw or other cumbersome tool which would increase the time and skills needed for the procedure, along with decreasing the sterility of the process (e.g., the metal shavings distributed from the sawing process).

McLaren is limited to a locking cap having a helically threaded body, such that the locking cap is threaded over the fixation rod. The rotation of a locking cap over a threaded rod often requires precise alignment of the locking cap to start the rotation process. Moreover, any uneven rotation usually results in the inability to continue to screw the cap, damage to the threads or the need to reverse the cap and start the process over again. The process of rotating the cap also takes extra time, extra hands, extra coordination and extra devices. The process of inserting the McLaren device and rotating the cap may also damage the surrounding tissue or pathology, thereby increasing the likelihood of infection.

The McLaren device also does not allow for extra tensioning of the fixation device by further pulling a wire or using a spring to continuously pull on the wire (e.g., paragraph [0030]),

Serial No. 10/779,892
Docket No. 40500.0117

as set forth in the presently claimed invention. While the excess portion of the rod may be removed, the rigid nature of the McLaren rod would require a hacksaw or other cumbersome tool which would increase the time and skills needed for the procedure, along with decreasing the sterility of the process (e.g., the metal shavings distributed from the sawing process).

The McLaren device also requires different sized rods and caps. As such, the McLaren device would literally destroy the benefits and functionality of the presently claimed invention. As set forth in the Background section of the present application, one purpose of the present invention is to avoid the need for numerous cap and rod sizes, along with avoiding the need for managing large sets of caps and rods that need to constantly be replaced.

Accordingly, neither Songer, McLaren, nor any combination thereof, teach or disclose at least "said cap having a second interface component including an inverse sawtooth configuration on an inner surface of said cap such that said cap is configured to translate along said wire with certain of said inverse sawteeth sliding over certain of said sawteeth," as recited by amended independent claim 1, or "translating a cap having a second interface component over said first interface component of said flexible wire such that said first interface component restricts reverse translational movement," as recited by amended independent claim 17.

Dependent claims 7, 18, 20 and 22 variously depend from independent claims 1 and 17, so Applicant asserts that claims 7, 18, 20 and 22 are differentiated from the cited references for the same reasons as set forth above, as well as in view of their own respective features.

The Examiner next rejects claims 17, and 22-23 under 35 U.S.C. § 103 (a) as being unpatentable over Songer in view of McLaren and in further view of Hardinge, U.S. Patent No. 2,381,050 ("Hardinge"). Applicant respectfully traverses this rejection.

Independent claim 11 is differentiated from the cited references for the same reasons as set forth above, namely, neither Songer, McLaren, Hardinge, nor any combination thereof, teach or disclose at least "a cap configured to mate with said second end of said flexible wire by translating along said flexible wire over a surface which restricts reverse translational movement," as recited by amended independent claim 11.

Dependent claims 22-23 variously depend from independent claim 11, so Applicant asserts that claims 22-23 are differentiated from the cited references for the same reasons as set forth above, as well as in view of their own respective features.

The Examiner next asserts that claims 1, 8 and 9 are rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent

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Docket No. 40500.0117

No. 6,736,819. Applicant respectfully traverses this rejection; however, to expedite prosecution, Applicant files herewith an appropriate Terminal Disclaimer (attached is a copy of Terminal Disclaimer submitted with initial Reply and Amendment to Office Action on February 14, 2006).

The Examiner next asserts that claims 17 and 19 are rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,736,819. Applicant respectfully traverses this rejection; however, to expedite prosecution, Applicant files herewith an appropriate Terminal Disclaimer.

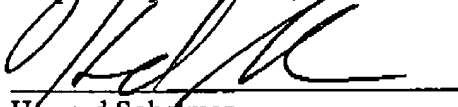
New dependent claims 25-26 variously depend from independent claim 1, so Applicant asserts that claims 25-26 are differentiated from the cited references for the same reasons as set forth above, as well as in view of their own respective features.

The Commissioner previously charged the following fees to Deposit Account No. 19-2814, so Applicant does not believe that any other fees are required at this time:

Terminal Disclaimer Fee (37 CFR 1.20(d))	\$65.00
Two new dependent claims (37 CFR 1.16(i))	\$50.00

Based on the foregoing remarks and amendments, Applicant respectfully submits that the present application is in condition for allowance, and earnestly solicits a Notice of Allowance at the Examiner's earliest convenience. The Examiner is invited to telephone the undersigned if such would advance prosecution of this application in any way.

Respectfully submitted,


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Reg. No. 39,038Dated: May 1, 2006

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